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- 5.4 Adjust the resin/solvent solution to pH 4.0, using the prestandardized pH meter, 1.0 N hydrochloric acid, 0.1 N hydrochloric acid, and 0.1 N sodium hydroxide.
- 5.5 Add 50 mL of the hydroxylamine hydrochloride solution, measured with a graduated cylinder. Start the timer.

5.6 Stir for 5 minutes. Titrate to pH 4.0 with standardized 1.0 N sodium hydroxide. Record the milliliters of titrant and the normality.

6. Calculations

# % FF = $\frac{\text{mL sodium hydroxide} \times \text{normality} \times 3.003}{\text{grams of sample}}$

#### 7. Method Precision and Accuracy

Test values should conform to the following statistical precision:

Variance = 0.005

Standard deviation = 0.07

95% Confidence Interval, for a single determination = 0.2

#### 8. Author

This method was prepared by K. K. Tutin and M. L. Foster, Tacoma R&D Laboratory, Georgia-Pacific Resins, Inc. (Principle written by R. R. Conner.)

# 9. References

- 9.1 GPAM 2221.2.
- 9.2 PR&C TM 2.035.
- 9.3 Project Report, Comparison of Free Formaldehyde Procedures, January 1990, K. K. Tutin.

APPENDIX C TO SUBPART NNN OF PART 63—METHOD FOR THE DETERMINA-TION OF PRODUCT DENSITY

# 1. Purpose

The purpose of this test is to determine the product density of cured blanket insulation. The method is applicable to all cured board and blanket products.

# $2.\ Equipment$

One square foot (12 in. by 12 in.) template, or templates that are multiples of one square foot, for use in cutting insulation samples.

#### $\it 3.\ Procedure$

- 3.1 Obtain a sample at least 30 in. long across the machine width. Sample should be free of dirt or foreign matter.
- 3.2 Lay out the cutting pattern according to the plant's written procedure for the designated product.
- 3.2 Cut samples using one square foot (or multiples of one square foot) template.
- 3.3 Weigh product and obtain area weight (lb/ft²).
  - 3.4 Measure sample thickness.
  - 3.5 Calculate the product density:

Density (lb/ft³) = area weight (lb/ft²)/thickness (ft)

# Subpart OOO—National Emission Standards for Hazardous Air Pollutant Emissions: Manufacture of Amino/Phenolic Resins

SOURCE: 65 FR 3290, Jan. 20, 2000, unless otherwise noted.

# § 63.1400 Applicability and designation of affected sources.

- (a) Applicability. The provisions of this subpart apply to the owner or operator of processes that produce amino/phenolic resins and that are located at a plant site that is a major source as defined in §63.2.
- (b) Affected source. The affected source is:
- (1) The total of all amino/phenolic resin process units (APPU);
- (2) The associated heat exchange systems:
- (3) Equipment required by, or utilized as a method of compliance with, this subpart which may include control devices and recovery devices;
- (4) Equipment that does not contain organic hazardous air pollutants (HAPs) and is located within an APPU that is part of an affected source;
- (5) Vessels and equipment storing and/or handling material that contain no organic HAP and/or organic HAP as impurities only:
- (6) Equipment that is intended to operate in organic HAP service for less than 300 hours during the calendar year:
  - (7) Each waste management unit; and
- (8) Maintenance wastewater.

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- (c) Existing affected source. The affected source to which the existing source provisions of this subpart apply is defined in paragraph (b) of this section.
- (d) New affected source. The affected source to which the new source provisions of this subpart apply is:
- (1) Each affected source defined in paragraph (b) of this section that commences construction or reconstruction after December 14, 1998;
- (2) Each additional group of one or more APPU and associated heat exchange systems that has the potential to emit 10 tons per year or more of any organic HAP or 25 tons per year or more of any combination of organic HAP that commences construction after December 14, 1998; or
- (3) Each group of one or more process units and associated heat exchange systems that are converted to APPUs after December 14, 1998, that has the potential to emit 10 tons per year or more of any organic HAP or 25 tons per year or more of any combination of organic HAP.
- (e) APPUs without organic HAP. An APPU that is part of an affected source, as defined in paragraph (c) or (d) of this section, but that does not use or manufacture any organic HAP, is not subject to any other provisions of this subpart and is not required to comply with the provisions of subpart A of this part. When requested by the Administrator, the owner or operator shall demonstrate that the APPU does not use or manufacture any organic HAP. Types of information that could document this determination include, but are not limited to, records of chemicals purchased for the process, analyses of process stream composition, engineering calculations, or process knowledge.
- (f) Exemption from equipment leak provisions. Affected sources with actual annual production of amino/phenolic resin equal to or less than 800 megagrams per year (Mg/yr) for the 12-month period preceding December 14, 1998 are exempt from the equipment leak provisions specified in §63.1410. The owner or operator utilizing this exemption shall recheck the actual annual production of amino/phenolic resins for each 12-month period following

- December 14, 1998. The beginning of each 12-month period shall be the anniversary of December 14, 1998. If the actual annual production of amino/phenolic resins is greater than 800 Mg/yr for any 12-month period, the owner or operator shall comply with §63.1410 for the life of the affected source or until the affected source is no longer subject to the provisions of this subpart.
- (g) Primary product determination and applicability. For purposes of this paragraph, amino resins and phenolic resins shall be considered to be the same product and production time or production mass of amino and phenolic resins shall be combined for purposes of determining the primary product under this paragraph (g). If the owner or operator determines that a process unit is not an APPU under paragraphs (g)(1) through (4) of this section, the owner or operator shall, when requested by the Administrator, demonstrate that the process unit is not an APPU.
- (1) Applicability determinations for process units producing multiple products. A process unit that produces more than one intended product at the same time is an APPU if amino/phenolic resin production accounts for the greatest percent of the annual design capacity on a mass basis. If a process unit has the same annual design capacity on a mass for two or more products, the process unit shall be an APPU if amino/phenolic resins are one of those products.
- (2) Flexible operations process unit determination based on operating time. A flexible operations process unit is an APPU if amino/phenolic resins will be produced for the greatest operating time over the 5 years following December 14, 1998 at existing process units, or for the first year after the process unit begins production of any product for new process units.
- (3) Flexible operations process unit determination based on mass production basis. A flexible operations process unit that will manufacture multiple products equally based on operating time is an APPU if amino/phenolic resins account for the greatest percentage of the expected production on a mass basis over the 5 years following December 14, 1998 at existing process units, or for the first year after the process unit

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begins production of any product for new process units.

- (4) Flexible operations process unit default determination. If the owner or operator cannot determine whether or not amino/phenolic resins are the primary product of a flexible operations process unit in accordance with paragraphs (g)(2) and (3) of this section, the flexible operations process unit shall be designated as an APPU if amino/ phenolic resins were produced for 5 percent or greater of the total operating time since December 14, 1998 for existing process units. The flexible operations process unit shall be designated as an APPU if the owner or operator anticipates that amino/phenolic resins will be manufactured in the flexible operations process unit at any time in the first year after the date the unit begins production of any product for new process units.
- (5) Annual applicability determination for non-APPUs that have produced amino/phenolic resins. Once per year beginning December 14, 2003, the owner or operator of each flexible operations process unit that is not designated as an APPU, but that has produced amino/ phenolic resins at any time in the preceding 5-year period or since the date that the unit began production of any product, whichever is shorter, shall perform an evaluation to determine whether the process unit has become an APPU. A flexible operations process unit has become an APPU if amino/ phenolic resins were produced for the greatest operating time over the preceding 5-year period or since the date that the process unit began production of any product, whichever is shorter.
- (6) Applicability determination for non-APPUs that have not produced amino/ phenolic resins. The owner or operator that anticipates the production of amino/phenolic resins in a process unit that is not designated as an APPU, and in which no amino/phenolic resins have been produced in the previous 5-year period or since the date that the process unit began production of any product, whichever is shorter, shall determine if the process unit will become an APPU. The owner or operator shall use the procedures in paragraphs (g)(1) through (4) of this section to determine if the process unit is designated as an

- APPU, with the following exception: for existing process units, production shall be projected for the 5 years following the date that the owner or operator anticipates initiating the production of amino/phenolic resins, instead of the 5 years following December 14, 1998.
- (7) Redetermination of applicability to APPU that are flexible operations process units. Whenever changes in production occur that could reasonably be expected to cause a flexible operations process unit to no longer be an APPU (i.e., amino/phenolic resins will no longer be the primary product according to the determination procedures in paragraphs (g)(2) through (4) of this section), the owner or operator shall reevaluate the status of the process unit as an APPU. A flexible operations process unit has ceased to be an APPU subject to this subpart if the following criteria are met:
- (i) If amino/phenolic resins were not produced for the greatest operating time over the preceding 5-year period or since the date that the process unit began production of any product, whichever is shorter;
- (ii) If the new primary product, which is not amino/phenolic resins, is subject to another subpart of this part; and
- (iii) If the owner or operator has notified the Administrator of the pending change in status for the flexible operations process unit, as specified in §63.1417(h)(4).
- (8) APPU terminating production of all amino/phenolic resins. If an APPU terminates the production of all amino/phenolic resins and does not anticipate the production of any amino/phenolic resins in the future, the process unit is no longer an APPU and is not subject to this subpart after notification is made to the Administrator, as specified in §63.1417(h)(4).
- (h) Storage vessel applicability determination. The owner or operator of a storage vessel at a new affected source shall determine assignment to a process unit as follows:
- (1) If a storage vessel is already subject to another subpart of part 63 on January 20, 2000, said storage vessel shall continue to be assigned to the

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process unit subject to the other subpart.

- (2) If a storage vessel is dedicated to a single process unit, the storage vessel shall be assigned to that process unit.
- (3) If a storage vessel is shared among process units, then the storage vessel shall be assigned to that process unit located on the same plant site as the storage vessel that has the greatest input into or output from the storage vessel (i.e., said process unit has the predominant use of the storage vessel).
- (4) If predominant use cannot be determined for a storage vessel that is shared among process units, and if one or more of those process units is an APPU subject to this subpart, the storage vessel shall be assigned to any of the APPUs.
  - (5) [Reserved]
- (6) If the predominant use of a storage vessel varies from year to year, then predominant use shall be determined based on the use as follows:
- (i) For existing affected sources, use shall be determined based on the following:
- (A) The year preceding January 20, 2000; or
- (B) The expected use for the 5 years following January 20, 2000.
- (ii) For new affected sources, use shall be determined based on the first 5 years after initial start-up.
- (7) Where the storage vessel is located in a tank farm (including a marine tank farm), the assignment of the storage vessel shall be determined according to paragraphs (h)(7)(i) and (ii) of this section. Only those storage vessels where a portion or all of the input into or output from the storage vessel is hardpiped directly to one or more process units are covered by this paragraph.
- (i) The storage vessel is assigned to a process unit if the product or raw material entering or leaving the process unit flows directly into (or from) the storage vessel in the tank farm without passing through any intervening storage vessel. An intervening storage vessel means a storage vessel connected by hardpiping both to the process unit and to the storage vessel in the tank farm.
- (ii) If there are two or more process units that meet the criteria of para-

- graph (h)(7)(i) of this section with respect to a storage vessel, the storage vessel shall be assigned to one of those process units according to the provisions of paragraphs (h)(3) through (6) of this section.
- (8) If the storage vessel begins receiving material from (or sending material to) a process unit that was not included in the initial determination, or ceases to receive material from (or send material to) a process unit, the owner or operator shall reevaluate the applicability of this subpart to the storage vessel according to the procedures in paragraphs (h)(3) through (7) of this section.
- (i) Applicability of other subparts to this subpart. Paragraphs (i)(1) through (5) describe the applicability of other subparts to this subpart.
- (1) After the compliance dates specified in this section, a storage vessel that is assigned to an affected source subject to this subpart that is also subject to and complying with the provisions of 40 CFR part 60, subpart Kb, shall continue to comply with 40 CFR part 60, subpart Kb. After the compliance dates specified in this section, a storage vessel that is assigned to an affected source subject to this subpart that is also subject to the provisions of 40 CFR part 60, subpart Kb, but the owner or operator has not been required to apply controls as part of complying with 40 CFR part 60, subpart Kb, is required to comply only with the provisions of this subpart. After the compliance dates specified in this section, said storage vessel shall no longer be subject to 40 CFR part 60, subpart Kb.
- (2) Affected sources subject to this subpart that are also subject to the provisions of subpart Q of this part shall comply with both subparts.
- (3) After the compliance dates specified in this section, an affected source subject to this subpart that is also subject to the provisions of 40 CFR part 60, subpart VV, or the provisions of subpart H of this part, is required to comply only with the provisions of this subpart. After the compliance dates specified in this section, said source shall no longer be subject to 40 CFR part 60, subpart VV, or subpart H of this part, as appropriate.

- (4) After the applicable compliance date specified in this subpart, if a heat exchange system subject to this subpart is also subject to a standard identified in paragraph (i)(4)(i) or (ii) of this section, compliance with the applicable provisions of the standard identified in paragraph (i)(4)(i) or (ii) of this section shall constitute compliance with the applicable provisions of this subpart with respect to that heat exchange system.
  - (i) Subpart F of this part.
- (ii) A subpart of this part that requires compliance with §63.104 (e.g., subpart U of this part).
- (5) After the compliance dates specified in this subpart, if any combustion device, recovery device or recapture device subject to this subpart is also subject to monitoring, recordkeeping, and reporting requirements in 40 CFR part 264, subparts AA, BB, or CC, or is subject to monitoring and recordkeeping requirements in 40 CFR part 265, subparts AA, BB, or CC, and the owner or operator complies with the periodic reporting requirements under 40 CFR part 264, subparts AA, BB, or CC, that would apply to the device if the facility had final-permitted status, the owner or operator may elect to comply either with the monitoring, recordkeeping and reporting requirements of this subpart, or with the monitoring, recordkeeping and reporting requirements in 40 CFR parts 264 and/or 265, as described in this paragraph, which shall constitute compliance with the monitoring, recordkeeping and reporting requirements of this subpart. If the owner or operator elects to comply with the monitoring, recordkeeping, and reporting requirements in 40 CFR parts 264 and/or 265, the owner or operator shall report all information required by §63.1417(f), Periodic Reports, as part of complying with the requirements of 40 CFR parts 264 and/or 265.
- (j) Applicability of general provisions. Table 1 of this subpart specifies the provisions of subpart A of this part that apply and do not apply to owners and operators of affected sources subject to this subpart.
- (k) Applicability of this subpart during periods of start-up, shutdown, malfunction, or non-operation. Paragraphs (k)(1) through (4) of this section shall be fol-

lowed during periods of start-up, shutdown, malfunction, or non-operation of the affected source or any part thereof.

- (1) The emission limitations set forth in this subpart and the emission limitations referred to in this subpart shall apply at all times except during periods of non-operation of the affected source (or specific portion thereof) resulting in cessation of the emissions to which this subpart applies. The emission limitations of this subpart and the emission limitations referred to in this subpart shall not apply during periods of start-up, shutdown, or malfunction. However, if a start-up, shutdown, malfunction, or period of non-operation of one portion of an affected source does not affect the ability of a particular emission point to comply with the emission limitations to which it is subject, then that emission point shall still be required to comply with the applicable emission limitations of this subpart during the start-up, shutdown, malfunction, or period of non-operation. For example, if there is an overpressure in the reactor area, a storage vessel that is part of the affected source would still be required to be controlled in accordance with §63.1404.
- (2) The emission limitations set forth in 40 CFR part 63, subpart UU, as referred to in §63.1410, shall apply at all times except during periods of non-operation of the affected source (or specific portion thereof) in which the lines are drained and depressurized resulting in cessation of the emissions to which §63.1410 applies, or during periods of start-up, shutdown, malfuncton, or process unit shutdown.
- (3) The owner or operator shall not shut down items of equipment that are required or utilized for compliance with this subpart during periods of start-up, shutdown, or malfunction; or during times when emissions are being routed to such items of equipment if the shutdown would contravene requirements of this subpart applicable to such items of equipment. This paragraph does not apply if the item of equipment is malfunctioning. paragraph also does not apply if the owner or operator shuts down the compliance equipment (other than monitoring systems) to avoid damage due to a contemporaneous start-up, shutdown,

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or malfunction of the affected source or portion thereof. If the owner or operator has reason to believe that monitoring equipment would be damaged due to a contemporaneous start-up. shutdown, or malfunction of the affected source or portion thereof, the owner or operator shall provide documentation supporting such a claim in the Precompliance Report as provided in §63.1417(d)(9) or in a supplement to the Precompliance Report. Once approved by the Administrator in accordance with §63.1417(d)(9), the provision for ceasing to collect, during a startup, shutdown, or malfunction, monitoring data that would otherwise be required by the provisions of this subpart shall be incorporated into the start-up, shutdown, malfunction plan for the affected source, as stated in paragraph (k) of this section.

(4) During start-ups, shutdowns, and malfunctions when the emission limitations of this subpart do not apply pursuant to paragraphs (k)(1) through (3) of this section, the owner or operator shall implement, to the extent reasonably available, measures to prevent or minimize excess emissions to the extent practical. For purposes of this paragraph, the term "excess emissions" means emissions in excess of those that would have occurred if there were no start-up, shutdown, or malfunction and the owner or operator complied with the relevant provisions of this subpart. The measures to be taken shall be identified in the applicable start-up, shutdown, and malfunction plan, and may include, but are not limited to, air pollution control technologies, recovery technologies, work practices, pollution prevention, monitoring, and/or changes in the manner of operation of the affected source. Backup control devices are not required, but may be used if available.

[65 FR 3290, Jan. 20, 2000, as amended at 71 FR 20460, Apr. 20, 2006]

### § 63.1401 Compliance schedule.

(a) New affected sources that commence construction or reconstruction after December 14, 1998, shall be in compliance with this subpart upon initial start-up or January 20, 2000, whichever is later.

- (b) Existing affected sources shall be in compliance with this subpart no later than 3 years after January 20,
- (c) If an affected source using the exemption provided in §63.1400(f) has an actual annual production of amino/phenolic resins exceeding 800 Mg/yr for any 12-month period, the owner or operator shall comply with the provisions of §63.1410 for the affected source within 3 years. The starting point for the 3-year compliance time period shall be the end of the 12-month period in which actual annual production for amino/phenolic resins exceeds 800 Mg/yr.
- (d) Pursuant to section 112(i)(3)(B) of the Clean Air Act, an owner or operator may request an extension allowing the existing affected source up to 1 additional year to comply with section 112(d) standards. For purposes of this subpart, a request for an extension shall be submitted to the permitting authority as part of the operating permit application or to the Administrator as a separate submittal or as part of the Precompliance Report.
- (1) Requests for extensions shall be submitted no later than 120 days prior to the compliance dates specified in paragraphs (a) and (b) of this section and shall include the data described in \$63.6(i)(6)(i)(A), (B), and (D). The dates specified in \$63.6(i) for submittal of requests for extensions shall not apply to this subpart.
- (2) An owner or operator may submit a compliance extension request less than 120 days prior to the compliance dates specified in paragraphs (a) and (b) of this section provided that the need for the compliance extension arose after that date, and the need arose due to circumstances beyond reasonable control of the owner or operator. This request shall include, in addition to the information specified in §63.6(i)(6)(i)(A), (B), and (D), a statement of the reasons additional time is needed and the date when the owner or operator first learned of the circumstances necessitating a request for compliance extension.
- (e) All terms in this subpart that define a period of time for completion of required tasks (e.g., weekly, monthly, quarterly, annual), unless specified